MODEL : SB-6333R & SB-6333T

HDMI HDBaseT EXTENDER with RS-232

Receiver

Transmitter

HDMI OVER CAT6/6a/7 EXTENDER

4K|2K CAPABLE

HDBT™

HDMI CATx EXTENDER Series

Thank you for purchasing the SB-6333T/R HDMI CATx extender kit. You will find this unit easy to install and highly reliable but it is essential that you read this manual thoroughly before attempting to use converter

SAFETY INFORMATION

1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the “ON” position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically “blown free” of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualifier service personnel when:
    A. The power supply cord or the plug has been damaged.
    B. Objects have fallen, or liquid has been spilled into the equipment.
    C. The equipment has been exposed to rain
    D. The equipment does not appear to operate normally, or exhibits a marked change in performance
    E. The equipment has been dropped, or the enclosure damaged.

TABLE OF CONTENTS

CONTENTS

TABLE OF CONTENTS 1
PACKAGE CONTENTS 1
FEATURES & SPECIFICATIONS 2
TYPICAL HOOKUP AND OPERATION 3
RACK MOUNT 4
IR EXTENDER 6

INTRODUCTION

Congratulations on your purchase of one of the most innovative HDMI 1.4a over single CATx cable Transmitter and Receiver on the market today. The HDBaseT Transmitter and Receiver can transmit and receive the HDMI, IR Remote signals input or output and RS-232 interface signal I/O from a HDBaseT Transmitter or receiver via LAN (category) cable for long distance Maximum 229 feet (70M). The SB-6333T/R uses the LAN (category cable) CAT5e, CAT6 or CAT6a via RJ-45 8P8C 568B socket. This product provide higher full HD HDMI 1.4a, Resolution supports 480i/p, 720p,1080i/p or High HD 4K2K quality that are identical to the source high quality full HDMI 1.4 signals. This HDBaseT Transmitter and Receiver are useful for sending the HDMI digital Video / multi-channel audio format, IR remote input/output and RS-232 Controls signals via category LAN cable.

PACKAGE CONTENTS

Check that you have the following components;

- SB-6333 Transmitter and Receiver
- Users Guide
- AC Adaptor: 12VDC/1A
  (universal power switch 50/60Hz,100~240VAC)

Optional Accessories :

- SB-100 set (IR Receiver, Extender assy plug)
- SB-100C cable (IR Receiver)
- SB-101 set (IR Transmitter, Extender assy plug)
- SB-101C cable (IR Transmitter)
- 1 inch High Wall mount pack (Part # WM-1INCH-80MM)
- CAT6 Category cable distance 229 ft. (70M), (P/N: UTP6-70)

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. We assume no responsibility for any infringements of patents or other rights of third parties which may result from its use.

We assume no responsibility for any inaccuracies that may be contained in this document. We make no commitment to update or to keep current the information contained in this document.

We reserve the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means — electronic, mechanical, magnetic, optical, chemical, manual, or otherwise — without express written permission and consent

© Copyright 1997. All Rights Reserved.

Version 1.5 MAR 2014

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.

FEATURES & SPECIFICATIONS

FEATURES

- HDBaseT HDMI Transmitter and Receiver over single category LAN cable.
- HDBaseT Transmitter and Receiver signals HDMI, IR I/O and RS-232 I/O.
- Support single category cable via using the CAT5e, CAT6 and CAT6a UTP/FTP cable.
- Support link speeds of up to 3.4 Gbps, HDMI 1.4, full HD 4K2K signal, HDCP compliant.
- Support Digital RGB 36bits, HDMI digital video TMDS, digital multi-channel audio format.
- Extension higher quality full HD DVI video WUXGA 1920x1200 resolution.
- Support HD High Definition full range resolution 480p, 720p 1080i/1080p and 4K2K.
- Support long distance 229 feet (70M) between HDBaseT Transmitter and Receiver.
- Support wall mount install 13 pcs into 19 inch 2U Rack mountable.
- Power support DC input with Low power consumes (Full load 650mA)
- Power supply using universal power switch 50/60Hz,100~230VAC.

SPECIFICATIONS

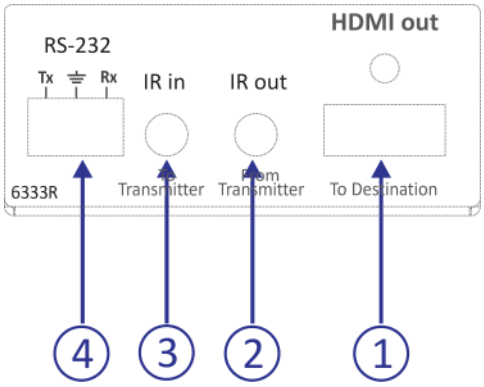
- **Type of Extender:** HDBaseT Transmitter and Receiver for HDMI over single category LAN Cable
- **Input Signals:** HDMI with Digital Video(TMDS)/Audio 0.5~1.0vPP, DDC 5Vpp
- **HDBaseT Signal Supports:** HDMI 1.4 Standard, DVI and HDCP Compliant
- **Video Support:** HDMI and DVI TMDS format for 1920x1200 resolution up to 3.4 Gbps Digital RGB 36bits deep color, 3D 1.4a HDMI format
- **HDMI Audio I/O Supports:** Multi-channel Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6.1, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- **Extra DVI Audio I/O:** 2CH-stereo audio (Phone Jack OD3.5mm connector)
- **Category Cable Support:** CAT5e, CAT6, CAT6a UTP or FTP cable
- **Support HDMI Resolutions:** 480p, 720p 1080i/1080p or 4K2K(24Hz)
- **Scan Rate Accepted:** Support HDMI full HD Resolution; Frequency 24Hz to 60Hz
- **Controls:**
  - 1x IR in
  - 1x IR out
  - 1x RS-232 I/O series interface
- I**R Infrared Frequency:** 38Khz
- **Extend Distance:** Up to 229 feet (70 meter) via (UTP CAT6 100m cable)
- **Rack Mount:** Total 13 pcs install into 19 inch 2U Rack mountable
- **Dimensions (LxWxH):** 3.14 x 3.56 x 1.14 in (80mm x 65mm x 29mm)
- **Product Weight:** 0.385 kgs / 0.847 lb each
- **Power Supply:** Power Input +12VDC, 1A (Universal Type 50/60Hz, 100~240 VAC)
- **Power Consumption:** Max. 650mA (Full load 1080p-60Hz signal with use DC12V input)

As product improvements are continuous, specifications are subject to change without notice.

TYPICAL HOOKUP AND OPERATION

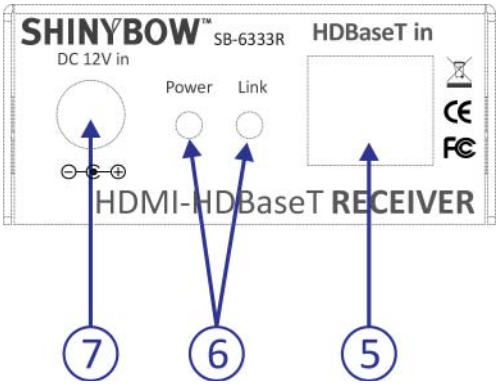
SB-6333

RECEIVER Front:



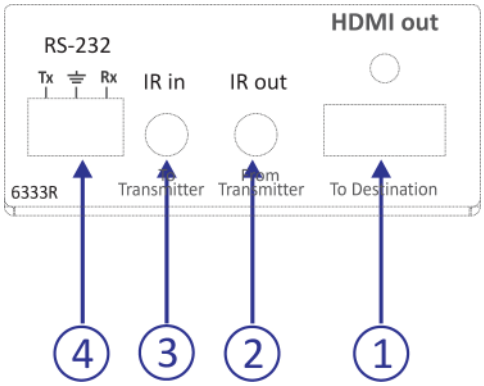
1. HDMI Out : HDMI signal output from SB-6333T (HDMI source).
2. IR Out : IR signal output (receive IR signal from SB-6333T).
3. IR In : IR signal input (send IR signal to SB-6333T).
4. RS-232 I/O : RS-232 series interface control via a PC.

RECEIVER Back:



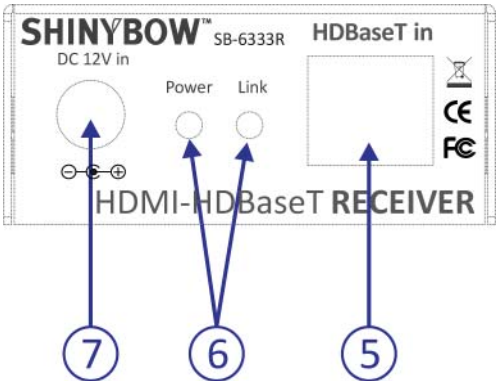
5. HDBaseT In : HDBaseT signal input (HDMI signal from SB-6333T)
6. Status LED Show Out : POWER & LINK
7. Power input : DV12V input

TRANSMITTER Front:



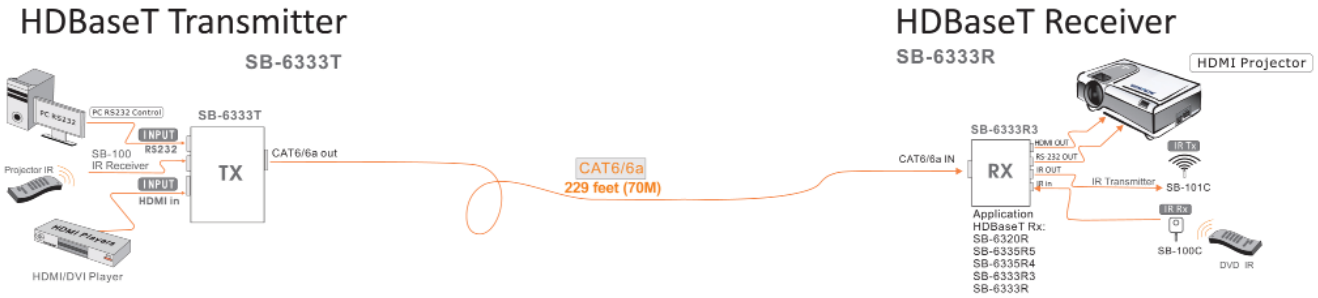
1. HDMI In : HDMI signal input (signal from HDMI source device).
2. IR Out : IR signal output (receive IR signal from SB-6333R).
3. IR In : IR signal input (send IR signal to SB-6333R).
4. RS-232 I/O : RS-232 series interface control via a PC.

TRANSMITTER Back:



5. HDBaseT Out : HDBaseT signal output to SB-6333R via CATx cable.
6. Status LED Show Out : POWER & LINK
7. Power input : DV12V input

INSTALLING DIAGRAM

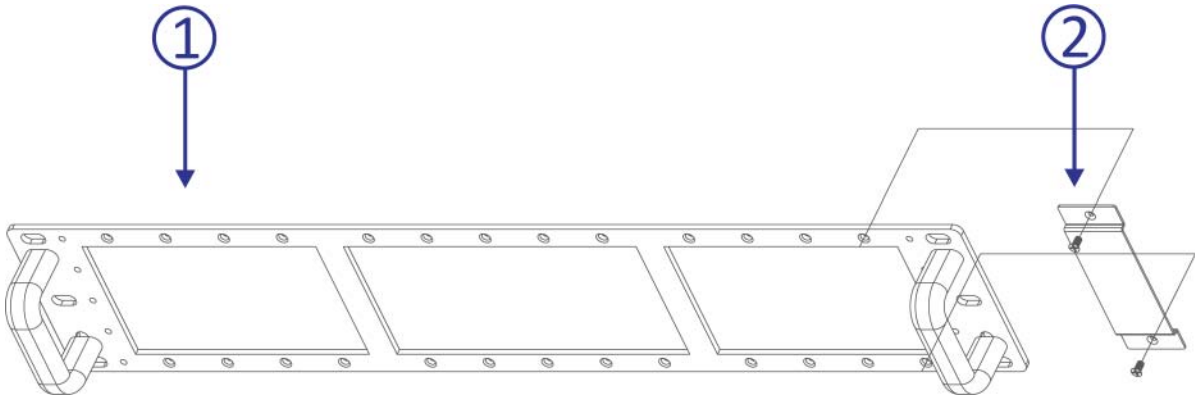


RACK MOUNT

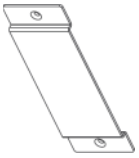
SB-6001 (OPTIONAL)

SB-6333T/R - 19 INCH 2U-13P RACK MOUNT

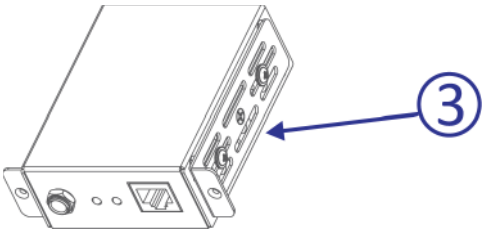
Model No. : #2U-13p-M80MM
SB-6333T/R 2U Ear mount pairs
Parts No.: MEERCAT5FT1300

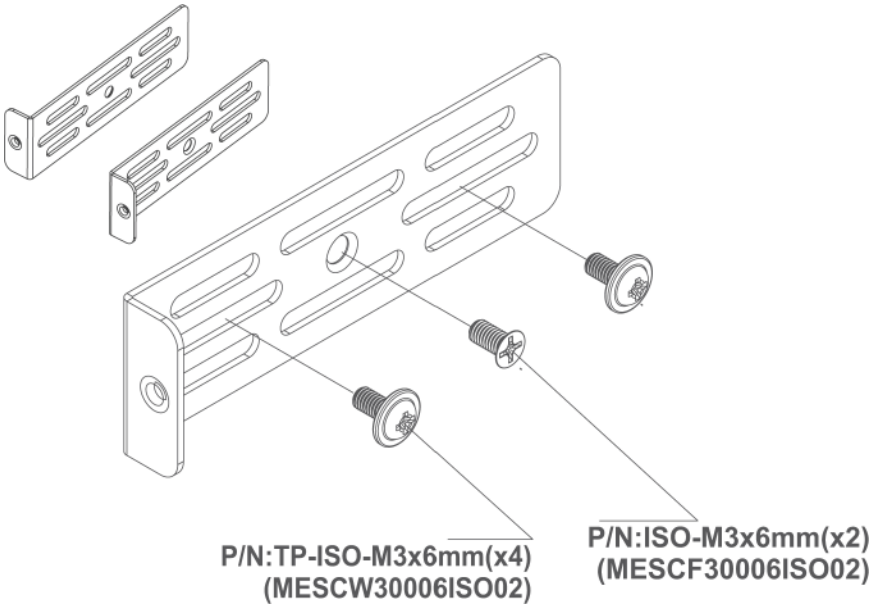


Model No. : 2U-13p-M80MM-COV
SB-6333T/R 2U Ear mount pairs
Parts No.: MEERCAT5RP11000



Model No. : #2U-13p-M80MM-EAR
SB-6333T/R 2U Ear mount pairs
Parts No.: MEER6300ER11001

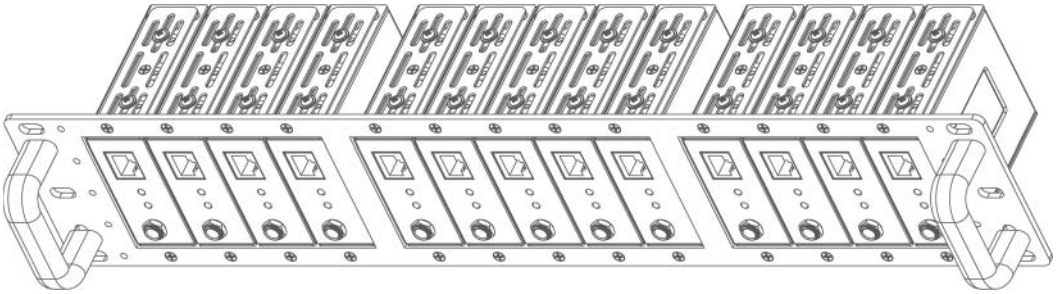




RACK MOUNT

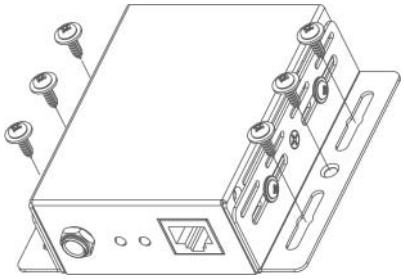
SB-6001

Complete 19 inch 2U rack mount (Total 13 pcs)

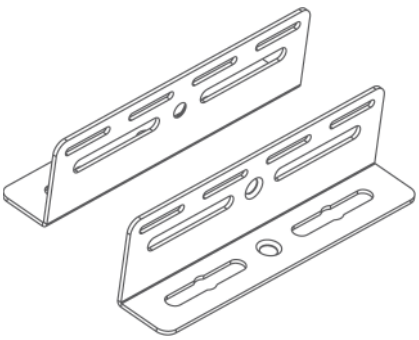


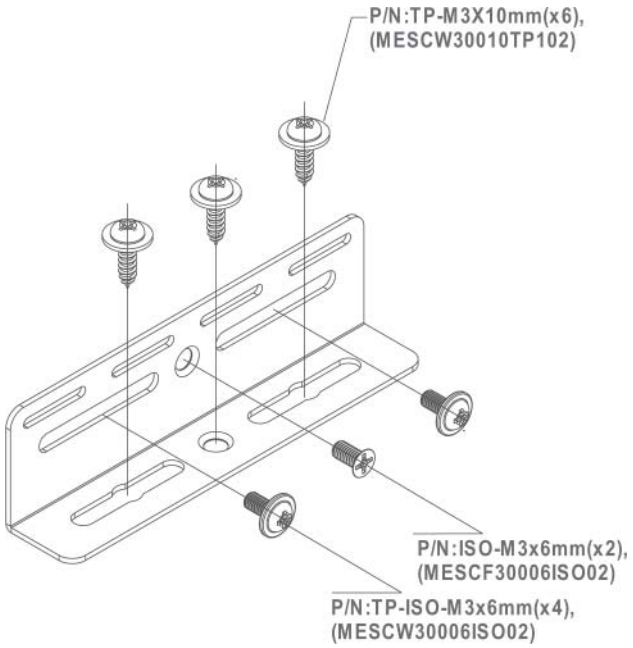
Install Application : SB-6333T3, SB-6333T, SB-6333R3 & SB-6333R

SB-6333T/R : Wall mount accessories



Model No. : #WM-1INCH-80MM
SB-6333T/R Wall mount pairs
Parts No.: MEER6300ER11000





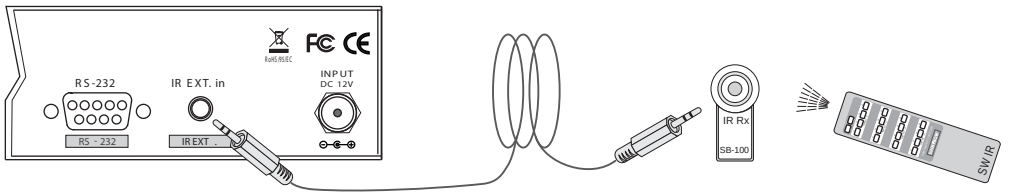
IR EXTENDER

IR RECEIVER:

1. SB-100 IR 300M Receiver

Device Cable (3C) IR Receiver (SB-100)

SB-100 IR Receiver Set



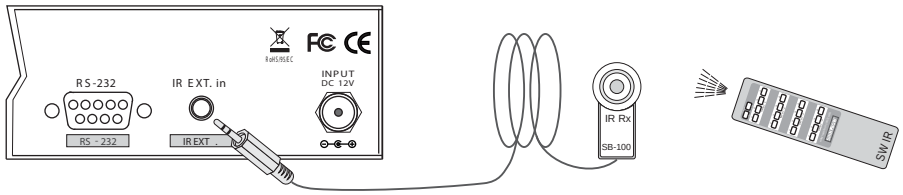
SB-100 Maximum Distance ~ 984 feet (300 meters)

2. SB-100C IR 2M Receiver

Device Cable (3C) IR Receiver (SB-100C)

IR Receiver cable 6ft (2M)

SB-100C IR Receiver Cable



SB-100C Maximum Distance ~ 6 feet (2 meters)

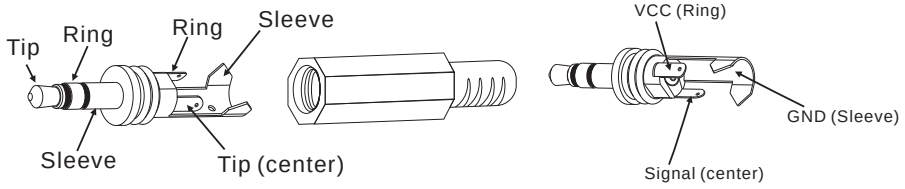
**** When you plug the External IR extender into the switcher, the front panel IR receiver remains active. ****

PIN CONFIGURATION:

SB-100 and SB-100C Receiver Pin configuration

SB-100 IR Receiver Set

Tip: Signal
Ring :VCC
Sleeve: GND

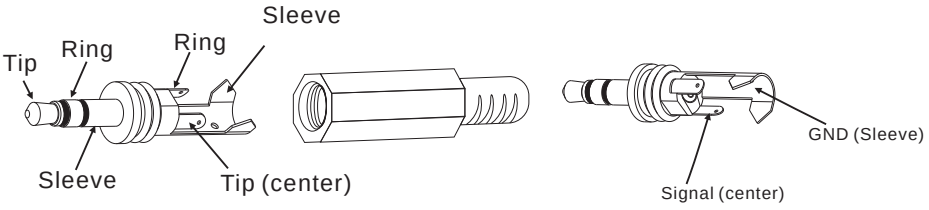


SB-100 Maximum Distance ~ 984 feet (300 meters)

IR Receiver cable 6ft (2M)

SB-100C IR Receiver Cable

Tip: Signal
Ring: NC
Sleeve: GND



SB-100C Maximum Distance ~ 6 feet (2 meters)

Note: *The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

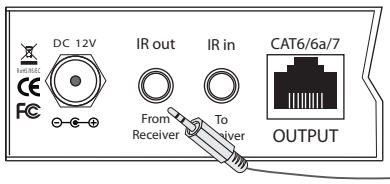
IR EXTENDER

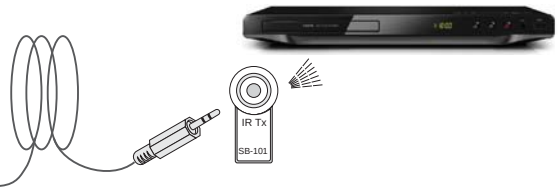
IR EMITTER:

1. SB-101 IR 300M Transmitter

Device Cable (3C) IR Transmitter (SB-101)

SB-101 IR Transmitter Set





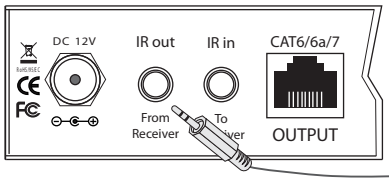
SB-101 Maximum Distance ~ 984 feet (300 meters)

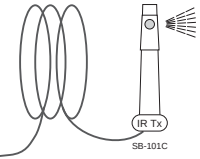
2. SB-101C IR 2M Transmitter

Device Cable (3C) IR Transmitter (SB-101C)

IR Transmitter cable 6ft (2M)

SB-101C Transmitter Cable





SB-101C Maximum Distance ~ 6 feet (2 meters)

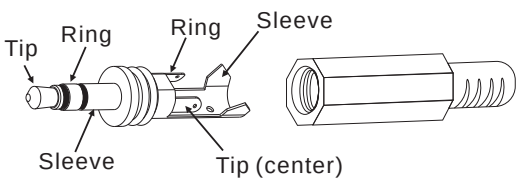
**** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ****

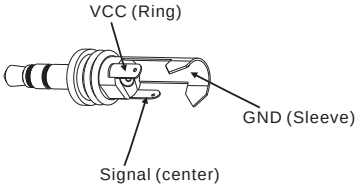
PIN CONFIGURATION:

SB-101 and SB-101C Transmitter Pin configuration

SB-101 IR Transmitter Set

Tip: Signal
Ring :VCC
Sleeve: GND



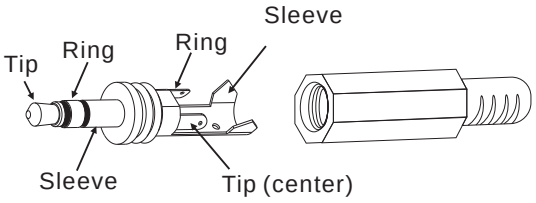


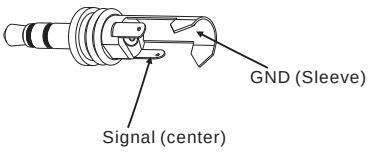
SB-101 Maximum Distance ~ 984 feet (300 meters)

IR Transmitter cable 6ft (2M)

SB-101C Transmitter Cable

Tip: Signal
Ring: NC
Sleeve: GND





SB-101C Maximum Distance ~ 6 feet (2 meters)

Note: *The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

LIMITED WARRANTY

PLEASE READ THE FOLLOWING TERMS AND CONDITIONS CAREFULLY BEFORE USING THIS HARDWARE, COMPONENTS AND SOFTWARE PROVIDED BY, THROUGH OR UNDER SHINYBOWUSA, INC (COLLECTIVELY, THE "PRODUCT"). By using installing or using the Product, you unconditionally signify your agreement to these Terms and Conditions. If you do not agree to these Terms and Conditions, do not use the Product and return the Product to SHINYBOWUSA, Inc. at the return address set forth on the Product's packing label at your expense. SHINYBOWUSA, Inc. may modify these Terms and Conditions at anytime, without notice to you.

RESTRICTIONS ON USE OF THE PRODUCT

It is your responsibility to read and understand the installation and operation instructions, both verbal and in writing, provided to you with respect to the Product. You are authorized to use the Product solely in connection with such instructions. Any use of the Product not in accordance with such instructions shall void any warranty pertaining to the Product. Any and all damages that may occur in the use of the Product that is not strictly in accordance with such instructions shall be borne by you and you agree to indemnify and hold harmless SHINYBOWUSA, Inc. from and against any such damage.

The Product is protected by certain intellectual property rights owned by or licensed to SHINYBOWUSA. Any intellectual property rights pertaining to the Product are licensed to you by SHINYBOWUSA, Inc. and/or its affiliates, including any manufacturers or distributors of the Product (collectively, "SHINYBOWUSA") for your personal use only, provided that you do not change or delete any proprietary notices that may be provided with respect to the Product.

The Product is sold to you and any use of any associated intellectual property is deemed to be licensed to you by SHINYBOWUSA for your personal use only. SHINYBOWUSA does not transfer either the title or the intellectual property rights to the Product and SHINYBOWUSA retains full and complete title to the intellectual property rights therein. All trademarks and logos are owned by SHINYBOWUSA or its licensors and providers of the Product, and you may not copy or use them in any manner without the prior written consent of SHINYBOWUSA, which consent may be withheld at the sole discretion of SHINYBOWUSA.

The functionality and usability of the Product is controlled by SHINYBOWUSA, Inc. from its offices within the State of Texas, United States of America. SHINYBOWUSA makes no representation that materials pertaining to the Product are appropriate or available for use in other locations other than the shipping address you provided with respect thereto. You are advised that the Product may be subject to U.S. export controls.
Disclaimers and Limitation of Liability

SHINYBOWUSA may change or modify the Product at any time, from time to time.

THE PRODUCT IS PROVIDED "AS IS" AND WITHOUT WARRANTIES OF ANY KIND EITHER EXPRESS OR IMPLIED. SHINYBOWUSA DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE PRODUCT'S CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

SHINYBOWUSA has no duty or policy to update any information or statements pertaining to the Product and, therefore, such information or statements should not be relied upon as being current as of the date you use the Product. Moreover, any portion of the materials pertaining to the Product may include technical inaccuracies or typographical errors. Changes may be made from time to time without notice with respect to the Product.

TO THE FULLEST EXTENT PERMISSIBLE PURSUANT TO APPLICABLE LAW, SHINYBOWUSA DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. SHINYBOWUSA DOES NOT WARRANT THE ACCURACY, COMPLETENESS OR USEFULNESS OF ANY INFORMATION WITH RESPECT TO THE PRODUCT. SHINYBOWUSA DOES NOT WARRANT THAT THE FUNCTIONS PERTAINING TO THE PRODUCT WILL BE ERROR-FREE, THAT DEFECTS WITH RESPECT TO THE PRODUCT WILL BE CORRECTED, OR THAT THE MATERIALS PERTAINING THERETO ARE FREE OF DEFECTS OR OTHER HARMFUL COMPONENTS. SHINYBOWUSA WILL USE ITS REASONABLE EFFORTS TO CORRECT ANY DEFECTS IN THE PRODUCT UPON TIMELY WRITTEN NOTICE FROM YOU NOT TO EXCEED 10 BUSINESS DAYS AFTER RECEIPT BY YOU OF THE PRODUCT, BUT YOU (AND NOT SHINYBOWUSA) ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR AND CORRECTION THAT WAS CAUSED BY YOU UNLESS OTHERWISE AGREED TO IN A SEPARATE WRITING BY SHINYBOWUSA.

UNDER NO CIRCUMSTANCES, INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE, SHALL SHINYBOWUSA BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE USE OF, OR THE INABILITY TO USE THE PRODUCT IN ACCORDANCE WITH ITS SPECIFICATIONS, EVEN IF SHINYBOWUSA OR ITS REPRESENTATIVES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL SHINYBOWUSA'S TOTAL LIABILITY TO YOU FROM ALL DAMAGES, LOSSES, AND CAUSES OF ACTION (WHETHER IN CONTRACT, OR OTHERWISE) EXCEED THE AMOUNT YOU PAID TO SHINYBOWUSA, IF ANY, FOR THE PRODUCT.

END OF DOCUMENT

122 Rose Ln. Suite 303 | Frisco, Texas 75034
1-877-SHINY-USA 1-877-744-6987 1-972-377-2508 sales@shinybowusa.com
www.shinybowusa.com